

# BENDING LIGHT



PROFESSOR PETE'S intro...

## Background Information:

Using the power of your eyes, bend a straw sitting in half a glass of water without even touching it! It sounds like magic but it's really another amazing scientific principle at work.



## Step 1: Collect your equipment...

- A glass half filled with water
- A straw
- 2 eyes (preferably yours)

## Step 2:

- Look at the straw from the top and bottom of the glass.

## Step 3:

- Look at the straw from the side of the glass, focus on the point where the straw enters the water, what is strange about what you see?



## PROFESSOR PETE SAYS...

Our eyes are using light to see various objects all the time, but when this light travels through different mediums (such as water & air) it changes direction slightly. Light refracts (or bends) when it passes from water to air. The straw looks bent because you are seeing the bottom part through the water and air but the top part through the air only. Air has a refractive index of around 1.0003 while water has a refractive index of about 1.33.